

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 26-33 were pending. In this amendment, claim 26 has been amended and new claims 38-52 are presented. Accordingly, claims 26-33 and 38-52 are now pending.

The amendment to the specification merely adds the patent number corresponding to the application from which this application claims priority.

Claims 26-33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,803,050 to Mack in view of U.S. Patent No. 5,525,302 to Astle. It is respectfully submitted that claim 26, as amended, is allowable over the teachings of Mack and Astle.

It is noted that the Office Action repeats, virtually verbatim, the entirety of the Detailed Action portion of the Office Action of October 22, 2003, issued in U.S. Application Serial No. 09/826,944. Applicants note, however, that the subject matter claimed in the two applications is significantly different. For example, the Detailed Remarks in both Office Actions indicated that "Mack discloses a work station comprising a receptacle holding structure ... and a substance transfer device" although a receptacle holding structure and a substance transfer device are not even elements of independent claim 26 of this application.

The present invention, as recited in independent claim 26, as amended, is directed to a work station having a fixed first receiving structure adapted to receive and carry a receptacle holding structure, a fixed second receiving structure adjacent the first receiving structure and adapted to receive and carry a contamination limiting element holding structure. The work station further includes a substance transfer device positioning structure constructed and arranged to permit a substance transfer device to be manually positioned with respect to a contamination limiting element holding structure carried by the second receiving structure and to permit a substance transfer device to be manually moved between the first and second receiving structures and to be manually positioned with respect to a receptacle holding structure carried by the first receiving structure. No such structure, or combination thereof, is shown or suggested in Mack or Astle alone or in combination.

Mack '050 describes an apparatus for dispensing and aspirating liquids in an automated immunoassay instrument. The instrument includes a probe assembly 56 which includes a substrate

dispensing probe 66 and a quench/diluent dispensing probe 68 positioned to engage a single test tube and a detergent dispensing probe 72 and an aspirating probe 74 positioned to engage a second test tube adjacent the first test tube. Mack '050 further describes a complicated receptacle processing procedure which includes two wash cycles followed by a substrate dispensing step.

A rack 18b is placed below the carriage 20 which carries the probe assembly 56. The rack 18b is carried on movable table 30 (col. 5, Ins. 14-16, Fig. 2). The carriage is movable in a lateral direction by means of carriage belt 36 driven by carriage motor 38. (Fig. 5, Ins. 32-33) Vertical movement of the probes is effected by probe motors which drive jack screws (e.g., col. 5, Ins. 37-58, 45-49).

A first wash cycle consists of: (1) aspirating the reagent and sample serum through probe 74; (2) dispensing detergents into the test tube through sample probe 72; (3) aspirating the detergent through sample probe 74; (4) dispensing detergent through the sample probe 72; (5) aspirating detergent through the sample probe 74; and (6) dispensing detergent through sample probe 72. (See col. 6, Ins 40-63). This first wash cycle is performed on each test tube in a row of test tubes. In the example shown in Figure 5 of Mack '050, the first wash cycle is first performed on each of test tubes 1-5 in the first row. After performing the first wash cycle on test tube 5, the carriage moves to test tube 6 (i.e., the first test tube of the next row) where the first wash cycle is performed on test tube 6. Thereafter, the carriage 20 moves back one row to position the probes 74 and 72 above test tube 1. The last step of the first wash cycle was dispensing detergent through sample probe 72. Thus, test tube 1 has had a "soak time" while the first wash cycle was performed on each of test tubes 2-6. With the wash probes 72 and 74 now positioned again within test tube 1, the second wash cycle is performed on test tube 1. The second wash cycle consists of: (1) aspirating detergent through sample probe 74; (2) dispensing additional detergent through sample probe 72; and (3) drying the test tube with sample probe 74. (See col. 7, Ins. 35-50). Thereafter, the carriage 20 is moved relative to the rack 18b so as to position the wash probes 72 and 74 within test tube 7 so that the first wash cycle can be performed on test tube 7. Next, the wash probes 72 and 74 are moved back one row to test tube 2, which has been soaking in detergent while the first wash cycle was performed on each of test tubes 3-7 and the second wash cycle was performed on test tube 1. With the wash probes 72 and 74 positioned within test tube 2, the second wash cycle is then performed on test tube 2. The substrate probe 66 is offset from the wash probes 72 and 74 by one position in the row, thereby placing substrate probe 66 within test tube 1 while the wash probes

72, 74 are disposed within test tube 2. While the wash probes 72 and 74 are positioned within test tube 2 so as to perform the second wash cycle on test tube 2, substrate reagent is added to the now dry test tube 1 through the substrate probe 66. (See col. 7; lns. 50-57).

Astle '302 describes a device for simultaneously transferring multiple samples. In the example described, the dispensing apparatus includes "[p]istons 50 and channels 60 [] laid out in a 8 x 12 configuration" to provide a conduit for dispensing or aspirating fluid to or from each receptacle of a 96-receptacle sample tray. (Col. 6, lns 50-52). In other words, substance is dispensed into or aspirated from all of the receptacles of the sample tray simultaneously. Sample tray 90 is carried on support platform 108, and the tray 90 is raised into operating engagement with the pipette tips 70 by a motorized scissors jack mechanism 100. (Col. 7, lns. 1-4). The tray 90 is moved laterally by means of X-Y platforms 124 and 126. (Col. 7, lns. 19-22).

Neither Mack nor Astle teaches or suggests a work station with a fixed first receiving structure adapted to receive and carry a receptacle holding structure, a fixed second receiving structure adjacent the first receiving structure and adapted to receive and carry a contamination limiting element holding structure, and a substance transfer device positioning structure constructed and arranged to permit a substance transfer device to be manually positioned with respect to a contamination limiting element holding structure carried in the second receiving structure and permit a substance transfer device to be manually moved between the first and second receiving structures and to be manually positioned with respect to a receptacle holding structure carried by the first receiving structure.

The sample tray and pipette supporting structures of Astle and Mack are not fixed. The supporting structures are movable for moving the sample trays and pipettes with respect to the substance transfer devices. The substance transfer devices of Mack and Astle are automated; neither is manually positioned or manually moved.

Accordingly, the combination of Mack '050 and Astle '302 does not disclose all of the elements of rejected claim 26.

Furthermore, the proposed incorporation of the teaching of Astle '302 into the device described in Mack '050, even if technologically possible, which applicants do not concede, is simply a hindsight reconstruction of the claimed invention and is not based on a motivation to combine that is described in either of the references or would have been known to a person of ordinary skill in the art.

"When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." In re Rouffet, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998); see also MPEP § 2143.01. Virtually all inventions are combinations of old elements. See In re Rouffet, 47 USPQ2d at 1457. If identification of each claimed element in the prior art were sufficient to negate patentability, the Patent Office could use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. See Id. To prevent the use of hindsight based on the teachings of the patent application, the Patent Office must show a motivation to combine the references in the manner suggested. See Id. at 1457-1458.

In Rouffet, the Court of Appeals held that the Board of Patent Appeals and Interferences did not err in finding that all elements recited in the claims of Rouffet's application were contained in the combined disclosures of three prior art references. See In re Rouffet, 47 USPQ2d at 1457. The Court did hold, however, that the Board erred in determining that one skilled in the art would have been motivated to combine the references in such a manner as to render the rejected claims obvious. See Id. at 1457.

Even if all elements recited in the claims can be found in the combined disclosures of Mack '050 and Astle '302 – which, as demonstrated above, is not the case – there is no reason that one of ordinary skill in the art would have been motivated to combine these references in such a manner as to render the rejected claims obvious.

Mack '050 describes an apparatus in which two wash probes engage a single test tube and alternately dispense substance into and aspirate substance from the test tube. Two dispensing probes engage a single test tube adjacent to the test tube engaged by the two wash probes. Because of the need for a soak time during the wash procedure, the device of Mack '050 is constructed, arranged, and operated so that a first wash cycle is performed on all test tubes of each row and a second wash cycle is performed while the first wash cycle is being performed on the test tubes of a second row. Astle '302 describes a device which dispenses to or aspirates from all the receptacles in a sample tray at once, but which cannot dispense and aspirate at the same time.

It has been held that a rejection is improper where the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference]

construction was designed to operate." In re Ratti, 270 F.2d 810, 813, 123 USPQ. 349, 352 (C.C.P.A. 1959) (emphasis added), see also MPEP § 2143.01, at page 2100-127.

Incorporating the transfer apparatus of Astle '302 into the device of Mack '050, if even possible, would require a substantial redesign of the Mack device and would change its principle of operation. The two devices are substantially different from each other from a structural and operational standpoint. The mere fact that the devices of both references aspirate fluids from and dispense fluids to receptacles does not mean that it would have been obvious, or even possible, to combine the teachings of the two references in order to "increase the throughput of the work station" as suggested in the Office Action. (see Office Action at page 3). Moreover, the two-cycle wash operation of Mack, which provides the necessary soak time, would not be possible if the transfer device aspirated all receptacles simultaneously.

For the foregoing reasons, the applicant respectfully submits that the Office Action fails to set forth a *prima facie* case of obviousness of claims 26-33 based on the teaching of Mack '050 and Astle '302. Accordingly, the rejection of claims 26-33 under §103 is improper and should be withdrawn.

Original dependent claims 27-33 are believed to be allowable as being dependent from allowable independent claim 26. In addition, newly presented dependent claims 38-52 are also believed to be allowable as being dependent from allowable independent claim 26.

Furthermore, dependent claims 28 and 31 recite a substance transfer device constructed and arranged to simultaneously remove substance from two or more receptacles of one set of receptacles at the same time the substance transfer device simultaneously dispenses substance into each of two or more receptacles of another set of receptacles. No such structure is recited in Astle or Mack. As explained above, the device of Astle dispenses or removes substance from all 96 receptacles simultaneously. Mack does not describe a device that can dispense into two or more receptacles while removing substance from two or more receptacles. As further explained above, combining the teachings of Mack and Astle would not have been obvious as the two devices are substantially different in construction and operation.

Dependent claims 29 and 32 are directed to a substance transfer device constructed and arranged to simultaneously dispense substance into each of two or more receptacles or simultaneously remove substance from each of two or more receptacles. As explained above,

incorporating the teachings of Astle into the teachings of Mack would not have been obvious, and thus the combined teachings of these references do not defeat the patentability of claims 29 and 32.

Claims 30 and 33 recite a first substance transfer device constructed and arranged to dispense substance into each of two or more receptacles and a second substance transfer device constructed and arranged to remove substance from each of two or more receptacles. Mack does not teach a substance transfer device that dispenses or removes substances from two or more receptacles simultaneously. Furthermore, as explained above, it would not have been obvious to combine the teachings of Astle with the teachings of Mack. Thus, the combined teachings of these references do not defeat the patentability of claims 30 and 33.

New dependent claim 39 depends from new dependent claim 38 and recites that the device includes receptacle registration structure which comprises a pair of elongated guide supports having aligned guide holes and contamination limiting element registration structure including a pair of elongated guide supports with aligned guide holes and the guide members of the substance transfer devices comprise guide rods which are engageable with the guide holes of the guide supports. No such structure is described in any of the cited references.

Claims 41-43 recite specific structures which comprise the contamination limiting element holding structure. None of the structures described in claims 41-43 are shown in the cited references.

Dependent claim 49 recites that the substance transfer device comprises an elongated central support member, a pair of upstanding handle members, substance dispensing apparatus, and a substance removing apparatus. No such structure is described in the cited references.

Dependent claim 50 recites that the first receiving structure comprising a first well includes a plurality of spaced, substantially parallel dividing walls extending laterally across the bottom portion of the first well. No such structure is shown or described in the cited references.

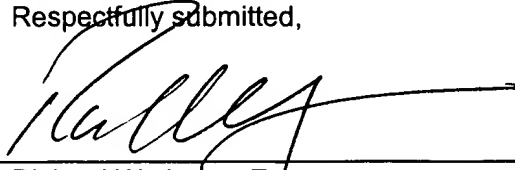
Dependent claims 51 and 52 recite that the first receiving structure includes magnet structures for exposing a substance contained within a receptacle to a magnetic field. No such structure is described in any of the cited references.

Appl. No. 09/826,950
Amdt. dated Feb. 6, 2004
Reply to Office Action of Oct. 6, 2003

All rejections and objections having been addressed, it is respectfully submitted that the present application is now in condition for allowance and a notice to that effect is earnestly requested.

Respectfully submitted,

By



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